

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2004-18582; Directorate Identifier 2003-NM-35-AD; Amendment 39-13831; AD 2004-22-03]

RIN 2120-AA64

Airworthiness Directives; Empresa Brasileira de Aeronautica S.A. (EMBRAER) Model EMB-135 and -145 Series Airplanes

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Final rule.

SUMMARY: The FAA is adopting a new airworthiness directive (AD) for certain EMBRAER Model EMB-135 and -145 series airplanes. This AD requires measuring the fillet radius dimension of the trunnion fitting webs of the wings; and reworking the fillet radius of the trunnion fitting web in order to increase the radius, doing related investigative actions, and doing applicable corrective action, if necessary. This AD is prompted by a report indicating that trunnion fittings of the wings have been manufactured with a web fillet radius smaller than the minimum required by the design data, which may induce the occurrence of fatigue cracks at the root of the trunnion fillet radius and adjacent structures (e.g., spar and ribs). We are issuing this AD to detect and correct fatigue cracking of the wing trunnion fittings or adjacent structure, which could result in failure of the main landing gear, consequent damage to surrounding structure, and possible loss of control of the airplane during landing.

DATES: This AD becomes effective December 3, 2004.

The incorporation by reference of certain publications listed in the AD is approved by the Director of the Federal Register as of December 3, 2004.

ADDRESSES: For service information identified in this AD, contact Empresa Brasileira de Aeronautica S.A. (EMBRAER), P.O. Box 343–CEP 12.225, Sao Jose dos Campos–SP, Brazil. You can examine this information at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, call (202) 741-6030, or go to: http://www.archives.gov/federal_register/code_of_federal_regulations/ibr_locations.html.

Docket: The AD docket contains the proposed AD, comments, and any final disposition. You can examine the AD docket on the Internet at <http://dms.dot.gov>, or in person at the Docket Management Facility office between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The Docket Management Facility office (telephone (800) 647-5227) is located on the plaza level of the Nassif Building at the DOT street address stated in the ADDRESSES section.

FOR FURTHER INFORMATION CONTACT:

Technical information: Todd Thompson, Aerospace Engineer, International Branch, ANM-116, FAA, Transport Airplane Directorate, 1601 Lind Avenue, SW., Renton, Washington 98055-4056; telephone (425) 227-1175; fax (425) 227-1149.

Plain language information: Marcia Walters, marcia.walters@faa.gov.

SUPPLEMENTARY INFORMATION: The FAA proposed to amend 14 CFR part 39 with an AD for certain EMBRAER Model EMB-135 and -145 series airplanes. The proposed AD was published in the Federal Register on July 13, 2004 (69 FR 41994), to require measuring the fillet radius dimension of the trunnion fitting webs of the wings; and reworking the fillet radius of the trunnion fitting web in order to increase the radius, doing related investigative actions, and doing applicable corrective action, if necessary.

Comments

We provided the public the opportunity to participate in the development of this AD. No comments have been submitted on the proposed AD or on the determination of the cost to the public.

Conclusion

We have carefully reviewed the available data and determined that air safety and the public interest require adopting the AD as proposed.

Costs of Compliance

This AD will affect about 60 airplanes of U.S. registry. The measurement will take about 2 work hours per airplane, at an average labor rate of \$65 per work hour. Based on these figures, the estimated cost of the AD for U.S. operators is \$7,800, or \$130 per airplane.

Regulatory Findings

We have determined that this AD will not have federalism implications under Executive Order 13132. This AD will not have a substantial direct effect on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed above, I certify that this AD:

- (1) Is not a "significant regulatory action" under Executive Order 12866;
- (2) Is not a "significant rule" under DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979); and
- (3) Will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

We prepared a regulatory evaluation of the estimated costs to comply with this AD. See the ADDRESSES section for a location to examine the regulatory evaluation.

List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

Adoption of the Amendment

Accordingly, under the authority delegated to me by the Administrator, the FAA amends 14 CFR part 39 as follows:

PART 39–AIRWORTHINESS DIRECTIVES

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

§ 39.13 [Amended]

2. The FAA amends § 39.13 by adding the following new airworthiness directive:

AIRWORTHINESS DIRECTIVE



Aircraft Certification Service
Washington, DC

U.S. Department
of Transportation
**Federal Aviation
Administration**

We post ADs on the internet at "www.faa.gov"

The following Airworthiness Directive issued by the Federal Aviation Administration in accordance with the provisions of Title 14 of the Code of Federal Regulations (14 CFR) part 39, applies to an aircraft model of which our records indicate you may be the registered owner. Airworthiness Directives affect aviation safety and are regulations which require immediate attention. You are cautioned that no person may operate an aircraft to which an Airworthiness Directive applies, except in accordance with the requirements of the Airworthiness Directive (reference 14 CFR part 39, subpart 39.3).

2004-22-03 Empresa Brasileira de Aeronautica S.A. (EMBRAER): Amendment 39-13831. Docket No. FAA-2004-18582; Directorate Identifier 2003-NM-35-AD.

Effective Date

- (a) This airworthiness directive (AD) becomes effective December 3, 2004.

Affected ADs

- (b) None.

Applicability

- (c) This AD applies to EMBRAER Model EMB-135 and -145 series airplanes, as listed in EMBRAER Service Bulletin 145-57-0034, Change 01, dated January 9, 2002; certificated in any category.

Unsafe Condition

- (d) This AD was prompted by a report indicating that trunnion fittings of the wings have been manufactured with a web fillet radius smaller than the minimum required by the design data, which may induce the occurrence of fatigue cracks at the root of the trunnion fillet radius and adjacent structures (e.g., spar and ribs). We are issuing this AD to detect and correct fatigue cracking of the wing trunnion fittings or adjacent structure, which could result in failure of the main landing gear, consequent damage to surrounding structure, and possible loss of control of the airplane during landing.

Compliance

- (e) You are responsible for having the actions required by this AD performed within the compliance times specified, unless the actions have already been done.

Service Bulletin

- (f) The term "service bulletin," as used in this AD, means the Accomplishment Instructions of EMBRAER Service Bulletin 145-57-0034, Change 01, dated January 9, 2002.

Measurement

(g) Before the accumulation of 2,000 total flight cycles, or within 500 flight hours after the effective date of this AD, whichever occurs later, measure the fillet radius dimension of the trunnion fitting webs of the wings in accordance with paragraph 3.(C), "Part I," of the service bulletin.

(1) If the fillet radius value is equal to or greater than 0.1969 inches (5 mm), no further action is required by this AD.

(2) If a fillet radius value is less than 0.0394 inches (1 mm), before further flight, do the actions specified in paragraph (h) of this AD.

(3) If the fillet radius value is equal to or greater than 0.0394 inch (1 mm), but less than 0.1969 inch (5 mm), before the accumulation of 4,000 total flight cycles, or within 500 flight hours after the effective date of this AD, whichever occurs later, do the actions specified in paragraph (h) of this AD.

Rework and Further Corrective Actions, if Necessary

(h) Rework the fillet radius of the trunnion fitting web to increase the radius, do related investigative actions, and do applicable corrective actions by accomplishing all the actions specified in paragraph 3.(D), "Part II," of the service bulletin. Do the actions in accordance with the service bulletin, except as provided by paragraph (i) of this AD. Any applicable corrective actions must be done before further flight.

(1) If the final fillet radius is less than 0.1969 inch (5 mm) and the radius limit contour is reached, before further flight, repair in accordance with a method approved by either the Manager, International Branch, ANM-116, FAA, Transport Airplane Directorate; or the Departamento de Aviacao Civil (DAC) (or its delegated agent).

(2) If the final fillet radius is equal to or greater than 0.1969 inches (5 mm), before further flight, shot-peen the reworked area in accordance with paragraph 3.(E), "Part III," of the service bulletin.

(i) If any crack is found in the structure during the related investigative action required by paragraph (h) of this AD, before further flight, repair in accordance with either the Manager, International Branch, ANM-116, Transport Airplane Directorate; or the DAC (or its delegated agent).

Credit for Previous Revisions of Service Bulletin

(j) Except as provided by paragraphs (h)(1) and (i) of this AD, measurements and rework of the fillet radius done before the effective date of this AD in accordance with EMBRAER Service Bulletin 145-57-0034, dated October 11, 2001, are acceptable for compliance with the requirements of this AD.

Alternative Methods of Compliance (AMOC)

(k) The Manager, International Branch, ANM-116, Transport Airplane Directorate, has the authority to approve AMOCs for this AD, if requested in accordance with the procedures found in 14 CFR 39.19.

Related Information

(l) Brazilian airworthiness directive 2001-12-03R1, effective February 4, 2002, also addresses the subject of this AD.

Material Incorporated by Reference

(m) You must use EMBRAER Service Bulletin 145-57-0034, Change 01, dated January 9, 2002, to perform the actions that are required by this AD, unless the AD specifies otherwise. The service bulletin contains these effective pages:

Page number	Revision level shown on page	Date shown on page
1, 2, 9, 10	01	Jan. 9, 2002.
3-8, 11-27	Original	Oct. 11, 2001.

The Director of the Federal Register approves the incorporation by reference of this document in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. For copies of the service information, contact Empresa Brasileira de Aeronautica S.A. (EMBRAER), P.O. Box 343-CEP 12.225, Sao Jose dos Campos-SP, Brazil. For information on the availability of this material at the National Archives and Records Administration (NARA), call (202) 741-6030, or go to http://www.archives.gov/federal_register/code_of_federal_regulations/ibr_locations.html. You may view the AD docket at the Docket Management Facility, U.S. Department of Transportation, 400 Seventh Street SW., room PL-401, Nassif Building, Washington, DC.

Issued in Renton, Washington, on October 18, 2004.

Kalene C. Yanamura,

Acting Manager, Transport Airplane Directorate, Aircraft Certification Service

[FR Doc. 04-23925 Filed 10-28-04; 8:45 am]

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